UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,659	11/04/2003	Yi Mei Hsieh Chen	L9079.03107	6463

7590 03/02/2007

STEVENS, DAVIS
MILLER & MOSHER, L.L.P.
Suite 850
1615 L Street, N.W.
Washington, DC 20036

EXAMINER	
FLORY, CHRISTOPHER A	
ART UNIT	**PAPER NUMBER**
3762	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

ED

Office Action Summary	Application No.	Applicant(s)	
	10/699,659	HSIEH CHEN, YI MEI	
	Examiner	Art Unit	
	Christopher A. Flory	3762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 January 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 21 and 22 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Allison (US Patent 4,016,868, hereinafter Allison'868).

3. Claims 21 and 22 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by De La Huerga (US Patent 6,346,886).

4. Claims 1-22 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Nissila (US Patent 6,580,943, hereinafter Nissila'943).

Nissila'943 is considered to clearly disclose the claimed invention as evidenced in the Abstract, as well as Figure 4 and the related portions of the disclosure. It is noted that the electrodes are inherently detachable, the monitor capable of being sewn into a garment, and any garment inherently washable.

Claim Rejections - 35 USC § 102/103

1. Claims 1-16, 19, 20 and 22 are rejected under 35 U.S.C. 102(b) as anticipated by Sackner et al. (U.S. Patent No. 6,551,252, hereinafter Sackner'252) or, in the alternative, under 35 U.S.C. 103(a) as obvious over Sackner'252 in view of Nissila (U.S. 2002/0068873, hereinafter Nissila'873).

In regards to claims 1 and 22, Examiner Sackner'252 discloses a heart beat signal wireless transmitter (see for example col. 5 lines 66-67 and col. 6 lines 1-11) comprising a body/monitoring garment (1) having at least two sides which construct a modular structure (see for example Figure 5), a PC board carrying a signal transmitter (see for example 42, 43 and 44) for use with ECG data (col. 25 lines 65-67), and a fastening device (41) which is at least on two sides of the body (see for example Figure 5) in which the disclosed zipper is inherently separately connected to the two sides of the body. Examiner takes the position that the fastening device (41) could obviously be substituted with the tightening/clamping device (8), since both provide a fastening/securing purpose (see for example col. 15 lines 23-49 and col. 25 lines 46-56).

Further in regards to claims 1 and 22, Sackner'252 also discloses multiple detachable sensor bands/belts (see for example 4, 5 and 6) which are connected to different sides of the body through the fastening device (see Figure 5), and further comprises a sensor component which comprises conductive material for transmitting ECG signals (col. 25 lines 56-58), and is also in electrical connection with the PC boards (see element 45). Notwithstanding the position that the sensor bands are disclosed as detachable, such a property is inherent to any non-integrally formed component, or alternatively it would have been obvious to one having ordinary skill in the art at the time of the invention to have detachable belts, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. Nerwin v. Erlicnman, 168 USPQ 177, 179.

Also in regards to claims 1 and 22, although the Sackner'252 reference does not specifically disclose that the fastening bands/belts are made of a water fast material, it is understood that water fastness, which denotes only a resilience or resistance to water, is an inherent property of those materials disclosed as the garment, straps and electrodes of Sackner'252, since all articles worn by humans must be in some manner resilient to water so as not to degrade by contact with moist human skin or perspiration. Alternatively, the Nissila'873 reference teaches that it is well known in the art to use waterproof materials for devices that provide heart beat signal measurements and transmitters (see for example paragraphs 11 and 19). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the system as taught by Sackner'252 to include waterproof materials to protect the system's water-sensitive components as taught by Nissila'873. Herein, it is noted that a waterproof material, which is impervious to water, is inherently also water fast, or resilient to water.

In regards to claim 2, Examiner takes the position that the flexible sensor bands (4, 5 and 6) as taught by Sackner'252 are inherently made of both a conductive and nonconductive/elastic materials (see for example col. 14 lines 59-62 and col. 25 lines 56-58), whereas the elastic materials are used for providing longitudinal elasticity sufficient to retain the band against the body. In the alternative, Examiner takes the position that it is well known in the art for sensors/electrodes to be made of both a conductive and nonconductive fabric.

In regards to claims 3-4, Sackner'252 teaches that the sensor bands are flexible and conductor, which is interpreted as meeting the limitations of compounds with conductive fiber and electronic fiber.

In regards to claims 5-8 and 19, Examiner takes the position that the system as taught by Sackner is capable of being fixed to underwear, including underwear to be worn on the torso, by sewing (see for example col. 14 lines 65-66 and Figure 5).

In regards to claims 9-10, Sackner'252 discloses that various fastening devices are interchangeable, including a buckle assembly and a zipper (see for example elements 8, 32 and 41, col. 14 lines 18-28 and col. 15 lines 41-47), and since the devices provide the same function it would have been obvious to one having ordinary skill in the art to modify an embodiment taught by Sackner'252 to include any of the fastening devices in the instant claims. Similarly in regards to claims 11-16, Examiner takes the position that the Sackner'252 reference teaches of a clamp comprising a clamping plate and tooth grip piece (see for example col. 14 lines 17-29 and col. 15 lines 41-47).

In regards to claim 20, Examiner acknowledges that the Sackner'252 reference does not specifically teach of having one electrode be a negative electrode and another electrode being a positive electrode. However, it is an inherent property of any electrical monitoring system to have one electrode more positive or negative in reference to the other electrode of the pair so that a measurement can be taken. Alternatively, Examiner takes the position that it is inherent in the system as taught by Nissila'873 that one of the two electrodes (402 and 404) would be positive and the other

would be negative, since this would be required to complete the circuit, and would have been obvious to one having ordinary skill in the art at the time of the invention to modify the system as taught by Sackner'252 (see for example Figure 3), to include a positive and negative electrode to provide a complete circuit.

Claim Rejections - 35 USC § 103

2. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sackner'252 in view of Nissila'873.

In regards to claims 17-18, Sackner'252 does not specifically teach of the use of male connecting heads and female connecting holes. However, Nissila'873 teaches that it is well known in the art to use male connecting heads and female connecting holes for electrical connection purposes (paragraph 3). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the system as taught by Sackner'252 to include male connecting heads and female connecting holes as taught by Nissila'873, since this type of connection is well known in the art for providing and electrical connection, as taught by Nissila'873.

Response to Arguments

1. Applicant's arguments, see paragraph 2 of page 9, filed 21 November 2006, with respect to the rejection of claims 1 and 20 under 35 U.S.C. §112 first and second paragraph, respectively, have been fully considered and are persuasive. The §112 rejections of claims 1 and 20 have been withdrawn.

2. Applicant's arguments filed 21 November 2006 have been fully considered but they are not persuasive. Claims 1-20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Sackner'252 in view of Nissila'873.

Applicant argues that Sackner'252 does not disclose that sensors 42-44 are removably attachable to electrodes 10 and 11, and does not disclose that the garment is washable. However, it is noted that any non-integral component, or one that is merely attached by sewing, clamping, soldering, etc., is inherently removable from other non-integrally constructed components. In this case, the sensors of Sackner'252 are inherently removably attachable to the electrodes for this reason. Likewise, any garment is inherently washable.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher A. Flory whose telephone number is (571) 272-6820. The examiner can normally be reached on M - F 8:30 a.m. to 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on (571) 272-4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher A. Flory

16 February 2007

George Manuel
Primary Examiner